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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/176,639	10/20/98	SCHEDIWY	R 20864.00600

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EXAMINER	
KUMAR, S	
ART UNIT	**PAPER NUMBER**
2675	7

DATE MAILED: 12/05/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
09/176,639	Schedlwy et al.
Examiner	**Group Art Unit**
Srilakshmi Kumar	2675

☒ Responsive to communication(s) filed on *Sep 5, 2000*

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) *1-12* is/are pending in the applicat

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1-7, 11, and 12* is/are rejected.

☒ Claim(s) *8-10* is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____ .

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 2, 6, 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grabner et al (U.S. 4, 731,694).

As to independent claim 1, Grabner et al disclose a touch pad module comprising sensor, insulative and conductive layers as shown in Col. 3, lines 20-22, 31-61 and Col. 4, lines 26-30. Grabner et al discuss where the sensor layer is Fig. 1, items 7 and 8, and where the insulative layer is Fig. 1, item 24. In a special embodiment of the touch pad, the insulative layer 24 also comprises a metallized layer as a conductor on upper flat surface. It would have been obvious that this extra layer shows the three layers of the touch pad with the sensor layer on the bottom, the insulative layer on top of the sensor layer and the conductive layer on top of the insulative layer.

This order could be advantageous as to have better touch detection.

As to dependent claim 2, claim 1 and further comprising where the sensor layer comprises a capacitive touch pad comprising rows of electrodes as shown by Grabner et al in Fig. 1, items 14, 15 and a dielectric layer Fig. 1, item 6 and is discussed in Col. 3, lines 31-42.

As to dependent claim 6, claim 1 and further comprising where the conductive layer is transparent. Grabner et al disclose different materials used in the touch pad as shown in Col. 4, lines 15-29, and where a plastic covering, Fig. 1, item 24, is present . It would have been obvious to one skilled in the art that different types of materials with different properties could be used.

As to dependent claim 11, claim 1 and further comprising where the signal can be registered by the way of pressure or resistance as shown in Col. 3, line 68-Col. 4, line 3. Grabner et al fail to disclose whether the capacitance generated is equal when either a finger or a stylus is used. It would have been obvious to one skilled in the art that the touch pad would have been able to generate enough capacitance in order for the touch pad to perform. The feature of equal capacitance would allow the touch pad to generate the same output regardless of the instrument used by the user.

As to dependent claim 12, claim 1 and further comprising where a bezel is located over the conductive layer to prevent contact of that portion of the touch panel. Although Grabner et al do not disclose this feature, it would have been obvious to one skilled in the art that this feature could have been easily incorporated into the system. The bezel would enable certain areas of the touch panel, such as the edges of the sensors, to be off limits to the user.

3. Claims 3-5, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grabner et al as view of Friend et al (U.S. 5,455,901).

As to dependent claim 3, claim 2 and further comprising where the conductive object comprises either a finger of a user or a stylus. Where Grabner et al fail to disclose the conductive

object, Friend et al disclose in Col. 5, lines 28-34. It would have been obvious to one skilled in the art that this feature of a stylus could have been easily incorporated into the Grabner et al system as it would have been needed as a means for input for the user.

As to dependent claim 4, claim 1 and further comprising where the conductive layer is deformable to the conductive object that results in a visible trail being created on the surface of the conductive layer. Where Grabner et al fail to disclose, Friend et al teach in Col. 1, lines 41-54. It would have been obvious to one skilled in the art that this feature would have been present in the Grabner et al system as the visible trail left by the conductive object shows the written input by the user.

As to dependent claim 5, claim 4 and further comprising where the visible trail is erasable. Where Grabner et al fail to teach, Friend et al teach in Col. 1, lines 55-63 where the handwritten input is erasable when an "x" is placed over it. It would have been obvious to one skilled in the art that this feature could have been easily incorporated into the Grabner et al system as it allows the user to make corrections without exiting from the system.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grabner et al in view of Okamoto et al (U.S. 5,502,461).

As to dependent claim 7, claim 6 and further comprising where a layer of liquid crystal is present. Where Grabner et al fail to teach, Okamoto et al teach in Col. 4, lines 51-58 a liquid crystal display panel which is used in input and output. It would have been obvious to one skilled

in the art that this feature of liquid crystal could have been incorporated into the Grabner et al system. The liquid crystal display is advantageous as it provides clearer resolution.

As to dependent claim 9, claim 1 and further comprising where the resistance of the input made by the stylus is suitable to measure position. Where Grabner et al fail to disclose the position data of an input, Okamoto et al teach in Col. 5, lines 6-13, Col. 6, lines 3-13. Okamoto et al teach the feature of an input control portion which measures the coordinate data of the handwriting input. It would have been obvious to one skilled in the art that this feature could have been incorporated into the Grabner et al system. This feature is advantageous as it allows the user to be aware of where a new input can be made.

Allowable Subject Matter

5. Claims 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record does not disclose a touch pad where the electronic device can analyze capacitive measurements to determine the difference between a finger or a stylus, and where the conductive layer is of a resistance as to expand a small contact area of a tip of conductive stylus into an image of suitable size for position measurement, and where the conductive layer comprises a sheet of plastic embedded with conductive carbon.

Response to Arguments

6. Applicant's arguments filed September 5, 2000 have been fully considered but they are not persuasive.

Contiguous, as defined by Meriam-Webster's Collegiate Dictionary, Tenth Edition, *to have contact with*, (1) *being in actual contact: touching along a boundary or at a point* (2) *of angles: adjacent to* (3) *next or near in time or sequence (4) touching or connected throughout in an unbroken sequence* <~ row houses>.

With respect to claim 1, Grabner et al disclose limitations as set forth by applicant's claimed invention. The conductive coating is shown as being contiguous over the surface of the sensor device.

With respect to claim 6, Grabner et al disclose where the touch pad is known from the field of design of computers as shown in Col. 1, lines 14-18. It would have been obvious to one of ordinary skill in the art that in the areas of computers, a transparent conductive layer is necessary in order for the user to be able to see the selections shown by the computer.

With respect to claim 11, Grabner et al disclose as shown in above rejection where the resistance of the conductive layer enables the module to generate equal capacitance whether a finger or a stylus tip is brought into contact with the conductive layer. Applicant's claim does not distinctly point out in claim 11 where the resistive sheet is to diffuse a capacitance caused by the contact of a conductive object and where the present sensor then measures this diffused capacitance. Applicant's claims states only where the module generates equal capacitance

regardless of if it is a finger or a stylus tip brought into contact with the conductive layer which is shown by Grabner et al in the above rejection.

Claim 12 states wherein a bezel is located over said conductive layer preventing said conductive object from contacting that portion of said touch pad module masked by said bezel. As the applicant acknowledges, the bezel used to mark the edges of the touch pad could have been obvious to one skilled in the art. Claim 12 does not state where the bezel is used to cordon off outer regions of the sensor area which exhibit non-ideal performance and where the choice of size is not arbitrary as suggested by the applicant in the Remarks of the Amendment.

As to claim 3, Grabner et al, as shown in claim 1, does disclose the use of the touch pad with a computer. The combination of Grabner et al and Friend et al is relevant as they encompass a touch pad. The stylus shown by Friend et al would have been a conductive object to one of ordinary skill in the art as it is necessary for any selection of information shown on the display as shown in Col. 1, lines 23-38.

As to claim 5, where a visible trail is erasable, this is clearly shown by Friend et al in Col. 1, lines 55-63 where the handwritten input is erasable when an "x" is placed over it. Applicant's claim does not distinctly claim the removal of the physical deformation.

As to claim 7, Okamato et al discloses the use of liquid crystal material which displays a visible change in response to contact of the conductive object as when the user uses the stylus for writing letters on the display as is shown in Fig. 2. It is obvious to one skilled in the art that when the user uses the stylus, a visible change is shown by the letter which is written.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., in claims 5, 7, 11 and 12 as stated in this section above) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Srilakshmi Kumar** whose telephone number is (703) **306-5575**. The examiner can normally be reached on Mondays through Fridays from 7:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Saras, can be reached on (703) 305-9720. The fax number is (703) 308-6606.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3800.

Any response to this final action should be mailed to:

Box AF

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications; please mark "EXPEDITED PROCEDURE")

Or:

(703) 308-6606 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

December 2, 2000

STEVEN SARAS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600